

Mumbai University

Question Paper

**[CBSGS – 75:25 PATTERN]
(APRIL – 2015)**

PAPER - III

DATA

WAREHOUSING

Time: 2 ½ Hours**Total Marks:** 75**N.B.:** (1) All Question are Compulsory.

(2) Make Suitable Assumptions Wherever Necessary And State The Assumptions Made.

(3) Answer To The Same Question Must Be Written Together.

(4) Number To The Right Indicates Marks.

(5) Draw Neat Labeled Diagrams Wherever Necessary.

(6) Use of Non – Programmable Calculator is allowed.

Q.1 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) What are Operational Databases? Explain the basic characteristics of Data Warehouse. (5)
- (B) Describe Virtual Data Warehouse and Central Data Warehouse. (5)
- (C) Explain the various types of additivity of facts with examples. (5)
- (D) Explain Star Schema Model with the help of diagram. (5)

Q.2 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) What is a Listener? How is it configured? (5)
- (B) What is Design Center? Explain the functions of Project Explorer and Connection Explorer Windows. (5)
- (C) Explain OWB Components and architecture with diagram. (5)
- (D) Explain the various steps involved in installing Oracle Database Software. (5)

Q.3 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) What is a Target Schema? How is a Target Module created? (5)
- (B) What is Time Dimension? Discuss various steps involved in creating a Time Dimension using Time Dimension Wizard. (5)
- (C) Explain the various characteristics of a dimension. (5)
- (D) Write notes on: (5)
- (i) Slowly Changing Dimension
- (ii) Surrogate Keys

Q.4 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) What is ETL? Explain the importance of Source Target Map. (5)
- (B) What is staging? What are its benefits? Explain the situation where staging is essential. (5)
- (C) Briefly explain the functions of filter and joiner operators. (5)
- (D) What are Data Flow Operators? Explain the concept of Pivot Operator with example. (5)

Q.5 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) What is the purpose of main attribute group in a cube operator? Discuss about dimension attributes and measures in the cube. (5)
- (B) What is Expression Operator? Explain the mapping of a date field SALE_DATE to a numeric field DAY_CODE by applying TO_CHAR() and TO_NUMBER() functions through expression operator. The string format for TO_CHAR() function is 'YYYYMMDD'. (5)
- (C) Explain the concept of validating and generating objects. (5)
- (D) What is Object Deployment? Explain the functions of Control Center Manager. (5)

Q.6 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) What is Recycle Bin? Describe the features of warehouse builder Recycle Bin Window. (5)
- (B) Explain Data Sparsity and Data Explosion. (5)
- (C) What is a Snapshot? Explain Full Snapshot and Signature Snapshot. (5)
- (D) Explain the export feature of Metadata Loader. (5)

[TURN OVER]

Q.7 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A)** Write any five significant differences between OLTP Database and Data Warehouse Database. **(5)**
 - (B)** What are the Hardware and Software requirements for installing Oracle Warehouse Builder? **(5)**
 - (C)** Explain Multidimensional implements o Data Warehouse. **(5)**
 - (D)** What are Mapping Operators? Explain any two source target mapping operators in detail. **(5)**
 - (E)** What are the two ways of Validating Repository objects in Objects Editor? Briefly explain various deploy actions of Object Details Window. **(5)**
 - (F)** What are the matching strategies for synchronizing workspace objects with its corresponding mapping operator? Explain inbound and outbound synchronization. **(5)**
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